

Title (en)  
PROCESS FOR PRODUCING NITRIDE SEMICONDUCTOR DEVICE

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINER HALBLEITENDEN NITRIDVORRICHTUNG

Title (fr)  
PROCEDE DE PRODUCTION D'UN DISPOSITIF A SEMI-CONDUCTEURS DE NITRURE

Publication  
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Application  
**EP 99943352 A 19990916**

Priority  
• JP 9905034 W 19990916  
• JP 26362598 A 19980917  
• JP 783099 A 19990114

Abstract (en)  
First, the substrate temperature is set to 1020 DEG C, and an n-type cladding layer (14) made of n-type Al<sub>0.1</sub>Ga<sub>0.9</sub>N, an n-type optical guide layer (15) made of n-type GaN, and a flatness maintenance layer (16) made of n-type Al<sub>0.2</sub>Ga<sub>0.8</sub>N for maintaining the surface flatness of the n-type optical guide layer (15) by suppressing re-evaporation of the constituent atoms of the n-type optical guide layer (15), are grown in this order on a substrate (11) made of sapphire. Then, the supply of a group III material gas is stopped, the substrate temperature is decreased to 780 DEG C, and the carrier gas is switched from a hydrogen gas to a nitrogen gas. Then, an active layer (17) having a multiple quantum well structure is grown by introducing NH<sub>3</sub> as a group V source and selectively introducing TMI and TMG as a group III source. <IMAGE>

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**H01S 1/00**

IPC 8 full level  
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